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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/774,811 | 02/09/2004 | Jeffrey J. Domey | SP01-269A | 9243 |
| 22928 | 7590 | 06/02/2006 | EXAMINER | |
| CORNING INCORPORATED | | | BOLDEN, ELIZABETH A | |
| SP-TI-3-1 | | | | |
| CORNING, NY 14831 | | | ART UNIT | PAPER NUMBER |
| | | | 1755 | |
| DATE MAILED: 06/02/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,811

Applicant(s)

DOMEY ET AL.

Examiner

Elizabeth A. Bolden

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/11/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Priority

The Applicant is requested to update the status of the related applications.

Information Disclosure Statement

The IDS submitted 11 May 2004 has been considered by the examiner.

Drawings

The drawings received on 9 February 2004 are accepted by the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara et al., U.S. Patent 5,958,809 in view of Ohashi et al., U.S. Patent 6,143,676.

Fujiwara et al. teach a silica glass used for photolithographic systems as recited in claims 5 and 10. See column 2, lines 43-45. Fujiwara et al. teach that the silica glass having overlapping ranges of an internal transmission, refractive index homogeneity, and hydrogen molecule and hydroxyl content with instant claims 1-4 and 6-9. See column 2, lines 45-62, column 9, lines 25-31, and column 17, lines 39-67. Fujiwara et al. teach that the silica glass has a reduced inner strain (birefringence). See column 2, lines 45-48. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Fujiwara et al. fails to teach a specific range of birefringence, which anticipates the instant claims.

Ohashi et al. teach a silica glass for lenses having overlapping ranges of hydrogen molecule concentration, hydroxyl content, refractive index distribution, and birefringence with

Art Unit: 1755

instant claims 1-10. See column 1, lines 5-14, column 3, lines 40-42, column 5, lines 5-6, and Table 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portions of the ranges disclosed by Fujiwara et al. as suggested by Ohashi et al. because the resulting silica member would have overlapping ranges with the instantly claimed fused silica member. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al., U.S. Patent 6,656,860 in view of Ohashi et al., U.S. Patent 6,143,676.

Yoshida et al. teach a silica glass used for photolithographic systems as recited in claims 5 and 10. See column 1, lines 53-67. Yoshida et al. teach a loss factor, which overlaps the internal transmission as recited in claims 1, 3, 6, and 8. See column 3, lines 20-30 and column 3, line 66 to column 4, line 12. Yoshida et al. teach that the silica glass having overlapping ranges of refractive index homogeneity, and hydrogen molecule content with instant claims 1, 2, 4, 6, 7, and 9. See column 1, lines 53-67 and column 3, lines 15-30. Yoshida et al. teach that the silica glass has a reduced birefringence, which improves the refractive index uniformity. See column 1, lines 53-67. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Yoshida et al. fails to teach a range of birefringence and a hydroxyl content, which anticipates the instant claims.

Ohashi et al. teach a silica glass having overlapping ranges of hydrogen molecule concentration, hydroxyl content, refractive index distribution, and birefringence with instant claims 1, 2, 4, 6, 7, and 9. See column 1, lines 5-14, column 3, lines 40-42, column 5, lines 5-6, and Table 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portions of the ranges disclosed by Yoshida et al. as suggested by Ohashi et al. because the resulting silica member would have overlapping ranges with the instantly claimed fused silica member. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Art Unit: 1755

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komine et al., U.S. Patent 6,649,268.

Komine et al. teach a silica glass used for photolithographic systems as recited in claims 5 and 10. See column 1, lines 10-18. Komine et al. teach an internal absorption coefficient, which meets the internal transmission value, recited in claims 1, 3, 6, and 8. See column 5, lines 53-61 and Table 5. Komine et al. teach that the silica glass having overlapping ranges of refractive index homogeneity, change in transmittance after irradiation, birefringence, hydroxyl content, and hydrogen molecule content with instant claims 1, 2, 4, 6, 7, and 9. See column 6, lines 7-26 and column 6, line 60 to column 7, line 2. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portions of the ranges disclosed by Komine et al. because the resulting silica member would have overlapping ranges with the instantly claimed fused silica member. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Conclusion

The additional references cited on the 892 have been cited as art of interest since they are considered to be cumulative to or less than the art relied upon in the rejections above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 571-272-1363. The examiner can normally be reached on 10 am to 8:30 pm every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EAB

28 May 2006


J.A. LORENGO
SUPERVISORY PATENT EXAMINER